Brilliant Violet 421™ anti-mouse LPAM-1 (Integrin α4β7) Antibody

Catalog# / Size	120613 / 50 µg
Clone	DATK32
Regulatory Status	RUO
Other Names	α4β7 Integrin, CD49d/β7, LPAM-1, ITGA4, ITGB7
Isotype	Rat IgG2a, κ
Description	DATK32 antibody is specific for a combinatorial determinate of integrin α4β7complex. Integrin α4β7 is composed of a 150 kD (α4 or CD49d) and a 130 kD (β7) heterodimer, also known as CD49d/β7 or LPAM-1. Belonging to the Ig superfamily, it is found on the majority of peripheral lymphocytes and subsets of thymocytes and bone marrow cells (including mast cell progenitors). Integrin α4β7 binds its ligands, VCAM-1 (CD106), MAdCAM-1 and fibronectin, and plays an important role in lymphocytes adhesion and the direction of migration of blood lymphocytes to the intestine and associated lymphoid tissues.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	TK1 cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: *in vitro* and *in vivo* blocking of cell adhesion[1-4], *in vitro* induction of TK1 cell aggregation[1], immunoprecipitation[4], and immunohistochemical staining of frozen sections[5]. It has been reported that the DATK32 mAb is

able to block a4ß7 mediated lymphocyte adhesion to VCAM-1, MAdCAM-1, and fibronectin *in vitro* and *in vivo*.

Application References

(PubMed link indicates BioLegend citation)

1. Andrew DP, *et al.* 1994. *J. Immunol.* 153:3847. (Block)
2. Berlin C, *et al.* 1993. *Cell* 74:185. (Block)
3. Berlin-Rufenach C, *et al.* 1999. *J. Exp. Med.* 189:1467. (Block)
4. Rivera-Nieves J, *et al.* 2005. *J. Immunol.* 174:2343. (Block, IP)
5. Bogetto L, *et al.* 2000. *Blood* 95:2397. (IHC)

RRID AB_3683148 (BioLegend Cat. No. 120613)

Antigen Details

Structure	Integrin family, Ig superfamily, 150 kD/130 kD heterodimer
Distribution	Majority of peripheral lymphocytes, subsets of thymocytes and bone marrow cells
Function	Lymphocyte adhesion
Ligand/Receptor	VCAM-1 (CD106), MAdCAM-1, fibronectin
Biology Area	Cell Biology, Immunology, Neuroscience, Synaptic Biology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Andrew DP, *et al.* 1994. *J. Immunol.* 153:3847. 2. Berlin C, *et al.* 1994. *Cell* 74:185. 3. Gurish MF, *et al.* 2001 *J. Exp. Med.* 194:1243. 4. Hamann A, *et al.* 1994. *J. Immunol.* 152:3282.
Gene ID	311144 25713

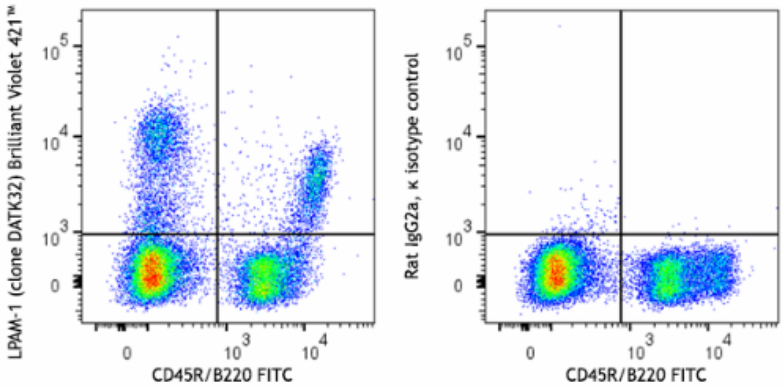
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-mouse LPAM-1 (Integrin α4β7), PE anti-mouse LPAM-1 (Integrin α4β7), APC anti-mouse LPAM-1 (Integrin α4β7), Biotin anti-mouse LPAM-1 (Integrin α4β7), Brilliant Violet 421™ anti-mouse LPAM-1 (Integrin α4β7)

Product Data



C57BL/6 mouse bone marrow cells were stained with anti-mouse/human CD45R/B220 (clone RA3-6B2) FITC and anti-mouse LPAM-1 (Integrin α4β7) (clone DATK32) Brilliant Violet 421™ or rat IgG2a, κ Brilliant Violet 421™ isotype control.

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